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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,596	06/24/2003	Kaicheng Chang	CHAN3205/EM	1491
23364	7590	10/06/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			CHIN, PAUL T	
			ART UNIT	PAPER NUMBER
			3652	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

HC

## Office Action Summary

Application No.

10/601,596

Applicant(s)

CHANG ET AL.

Examiner

PAUL T. CHIN

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 13 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

1. Applicant's election with traverse of the species of Figs. 4 and 5, readable on claims 1-6 and 13, in the reply filed on August 11, 2005, is acknowledged. The traversal is on the ground(s) that the species of Figs. 1-3 are not patentably distinct from that of Figs. 4-5. This is not found persuasive because Figs. 1-3 shows two grippers, each having an equilateral polygon shape, and Figs. 4 and 5 shows at least three grippers, each having a cylinder shape. Gripping an object with two polygon grippers and gripping an object at least three cylinder grippers are totally different. Moreover, the gripping surface of a polygon gripper has a slant area and the gripping surface of a cylinder shape gripper has a linear surface. Applicant also argues that the two species perform the same function with the substantially the same structure. The argument is not persuasive because the structural elements of the two species are different and applicant admits in the specification. Therefore, the two species of patentably distinct. The requirement is still deemed proper and is therefore made FINAL.

2. Claim 7 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species Figs. 6-8, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on August 11, 2005. Note that claim 7 recites the driving mechanism being a pair of charged electrodes as shown in figures 6-8 and described in lines 14-25 of page 8. Note that applicant cancels claims 8-12.

***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1,3-6, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Prausnitz et al. (6,743,211).

Prausnitz et al. (6,743,211) discloses a clutching mechanism comprising at least one elastic layer (see Figs. 11A and 11B), at least two protrusions each having a cylinder shape (Fig. 10A,B), a support mechanism (figs. 13A,B), and a driving mechanism, a vacuum pump (lines 32-51 of Col. 13) to deform the layer.

Re claim 4, Figure 10B shows a rectangular shape layer and rectangular shape support mechanism.

Re claim 13, Prausnitz et al. clutching mechanism (6,743,211) is a micro device.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prausnitz et al. (6,743,211) in view of Regan et al. (US 2004/0002121).

Prausnitz et al. (6,743,211), as presented in section 5 above, does not specifically show that the elastic layer is made of silica gel. However, Regan et al. teaches that the device can be made of silica (paragraph 84), silica gel for air drying (paragraph 80), and a flexible membrane 158. Accordingly, it would have been obvious to those skilled in the art to provide elastic materials such as silica gel or other on the layer of Prausnitz et al. (6,743,211) in view of Regan et al. (US 2004/0002121) to provide a certain deformation.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lastovich et al. (US 2002/0183688) shows a micro device comprising an elastic layer 20, at least two protrusions 44,44 and a vacuum pump for suction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL T. CHIN whose telephone number is (571) 272-6922. The examiner can normally be reached on MON-THURS (7:30 -6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EILEEN LILLIS can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Paul T. Chin", with a stylized flourish at the end.

PAUL T. CHIN  
Examiner  
Art Unit 3652